On Thursday, May 13<sup>th</sup>, Governing Board members will convene in small groups to discuss recommendations which surfaced during a session at the March 2021 meeting entitled *Reflections on Recommendations from the National Academies' Committee on Developing Indicators of Educational Equity*. That session featured three presenters who shared considerations for equity within NAEP.

A concise summary of the three presentations follows, after which the goals for the May 2021 discussion are described.

#### March 2021 Quarterly Meeting Summary: Equity Session

At the March 2021 quarterly meeting of the National Assessment Governing Board, members heard from three experts about considering equity within the context of assessment generally and the National Assessment of Educational Progress (NAEP) specifically.

- **<u>Rucker Johnson</u>**, the Chancellor's Professor of Public Policy in the Goldman School of Public Policy at the University of California, Berkeley. Johnson affirmed the importance of NAEP data and claimed that without NAEP, researchers cannot measure and track learning improvements and deficits related to school resources.
  - Johnson used NAEP as a benchmark to convert school and student test scores to grade-level equivalents at the national level, thus allowing comparisons of district per-pupil spending and achievement.
  - Johnson described how investments in pre-kindergarten and transitional kindergarten translated to stronger outcomes in subsequent grades. Johnson's research highlights the importance of how districts spend funds to such student outcomes as high school graduation rates.
- <u>Gerunda Hughes</u>, a member of the NAEP Validity Studies (NVS) Panel and Professor Emerita at Howard University, spoke about the role of NAEP as an indicator of educational (in)equity. Hughes suggested that NAEP can be infused with more equitable design, questions, and reporting.
  - Hughes explained that equity speaks to fairness, social justice, and the unequal distribution of resources so that individuals receive what they need to achieve an outcome, compared to equality where everyone receives the same resources. Equitable assessments should be aligned and validated with their specified interpretations and intended uses of results.
  - Hughes suggested collecting and/or reporting student grouping data not specifically listed in the legislation, such as additional variables to address (a) societal, (b) socioeconomic, (c) cultural, (d) familial, (e) programmatic, (f) staffing, (g) instructional, (h) linguistic, and (i) assessment inequities in the educational system.
  - Hughes highlighted where an equity lens can be applied to NAEP, namely in: (a) sampling, (b) assessment design and development, (c) administration, (d)

accommodations, (e) data analysis and reporting, (f) reporting and interpretations, and (g) use of results. She concluded with the five "E's" of equitable educational assessment: empathy, engagement, equity, evaluation, and equality.

- <u>Christopher Edley</u>, the Honorable William H. Orrick, Jr., Distinguished Professor of Law at the University of California, Berkeley Law School, chaired the National Academies' Committee on Developing Indicators of Educational Equity. The Committee recommended developing indicators of educational equity in seven domains. Edley focused his presentation on one domain—elementary and secondary school learning— and three recommendations for indicators: (1) engagement in schooling; (2) performance in coursework; and (3) performance on tests.
  - Committee members identified constructs to measure these indicators, e.g., engagement in schooling can include attendance or absenteeism. Future work needs to define the constructs. Some tailoring of the indicators for subgroups of special interest may be needed, but there should be a core set of indicators with comparability across jurisdictions.
  - The next steps are to build on existing data to measure and collect the indicators. In some cases, research and development are needed. NAEP is identified as a possible indicator of "disparities in performance on tests."
  - Edley asked the Board to consider "how NAEP and related data should be used to provide context and how NAEP-related data should be used within the Equity Indicators System."
  - Edley hopes the Governing Board will adopt a resolution commending the committee's effort to elevate the importance of the initiative and to raise funds to support next steps.
  - He also offered an ambitious suggestion to expand the Governing Board's statute to include overseeing a national system of educational equity indicators or to serve as an institutional home for the indicators.

A robust, yet very brief question-and-answer session followed the presentations. Highlights from the short discussion focused on urging educators to think beyond <u>what</u> factors in education work to <u>how</u> they work, on aligning interventions to school settings, and calling for additional data to capture students' educational experiences more fully, with a focus on subgroups.

In response to a few of the recommendations, Lynn Woodworth, Commissioner of the National Center for Education Statistics (NCES), shared that no law precludes NAEP from oversampling student groups. NCES is field testing a new SES indicator with selected states. NCES staff is permitted to conduct secondary analyses, however they are constrained by funding and staffing limitations.

Given the brevity of the discussion, staff deemed a subsequent conversation critical to deliberating upon the recommendations.

#### May 2021 Quarterly Meeting

The virtual meeting approach thus far has prevented small groups of members convening for activities beyond committee meetings. Given the content of the panelists' recommendations, however, small groups seem more amenable than a plenary session to facilitate deliberations on the recommendations' merits. Thus, members will exit the main meeting to meet in separate Zoom 'rooms' on Thursday, May 13<sup>th</sup> for small group deliberations.

Three goals drive these small group discussions:

- 1. What are the Board's goals for addressing equity through NAEP?
- 2. Which of the recommendations by Hughes and Edley warrant further discussion and/or pursuit?
- 3. Of those tagged for further effort, how should the Board prioritize the recommended activities?

Every Governing Board member will be assigned to a small group. The small groups will meet for approximately an hour. Each will be led by a Governing Board member who will offer a few questions to prompt conversation. A staff member will take notes. Observers may listen to the discussion, but only Governing Board members will participate in the discussion.

This May meeting will <u>not</u> include a reporting of the conversations. Instead, staff will write summaries of each group's conversation, which will be required reading prior to the August board meeting when a plenary session will address the topic.

To prepare for this session, we encourage you to read through: (1) Gerunda Hughes' PowerPoint slides; (2) a brief report from Edley that explicates in summary form the work of the National Academies' committee, next steps, and partnerships for the effort.

# The Role of NAEP as an Indicator of Educational (In)Equity

Gerunda B. Hughes

Professor Emerita, Howard University

National Assessment Governing Board (NAGB) Meeting – March 4, 2021

### NAEP as an Indicator of Equity in Education

- The National Academies of Sciences, Engineering, and Medicine recently released a report titled, *Monitoring Educational Equity*.
- The report acknowledges that disparities in educational attainment among different population groups have characterized the United States throughout its history and proposes to establish and implement a system of indicators of educational equity.
- In the report, NAEP is identified as a possible indicator of "disparities in performance on tests".

### What is Equity?

**Equity** speaks to fairness and social justice and the acknowledgement of differences. It references the differential or (un)equal distribution of resources or inputs for the purpose of meeting a specific need to address a particular purpose or outcome.

Gordon, E.G. (Summer, 1995). Toward an equitable system of educational assessment. The Journal of Negro Education, 64(3), pp.360-372.

### Provisions of "The NAEP Law"

- Purpose "...to provide, in a timely manner, a *fair and accurate measurement of student* academic achievement and reporting of trends in such achievement in reading, mathematics, and other subject matter as specified in this section."
- Measurement and Reporting "The Commissioner of Education Statistics ... shall-

A. Use a *random sampling process* which is consistent with relevant, widely accepted professional assessment standards and that produces data that are *representative on a national and regional basis*;

B. Conduct a national assessment and *collect and report assessment data*, including achievement data trends, *in a valid and reliable manner* on student academic achievement in public and private...schools...

G. Include information on special groups, including, whenever feasible, *information collected*, *cross tabulated, compared, and reported by race, ethnicity, socioeconomic status, gender, disability, and limited English proficiency...* 

# Inequities in Public Education

- Societal inequity
- Socioeconomic inequity
- Cultural inequity
- Familial inequity
- Programmatic inequity

- Staffing inequity
- Instructional inequity
- Linguistic inequity
- Assessment inequity

#### Attributes of Equitable Educational Assessments

- **Fair** Fair assessments are sensitive to the characteristics of different groups being assessed and thereby, where appropriate, employ equitable strategies in the design, development, and delivery of the assessment and in the reporting, interpretation, and uses of assessment results.
- Accurate measurement Accurate measurement occurs when measurement error is minimized for all groups of test-takers.
- Valid interpretations and uses Equitable measures are aligned and validated with their interpretations and uses of assessment results.

#### Validity of Inferences and Uses of Assessment Results

"There are several levels of inference that can be made from a test. Consider a reading comprehension test built on several passages drawn by an appropriate random sampling procedure from the articles appearing in *Reader's Digest*. Comprehension of each passage is tested by a set of multiple-choice questions, and [the] score is the number of correct answers chosen."

A low group mean score on this test might lead to any of the following inferences. Given each inference, how might the assessment results be used?

- 1. The individuals in this group have a low level of understanding of these passages.
- 2. The individuals in this group will have difficulty in understanding the contents of *Reader's Digest.*
- 3. The individuals in this group are, in general, poor readers.
- 4. The individuals in this group are not likely to do well in college.

### Equity in Educational Assessments

#### **Stages of Test/Testing Process**

- Purpose
- Sampling
- Design & Development
  - Content, Item formats
- Administration
  - Accessibility, Accommodations, Standardization
    - Mode, Timing, Language, etc.
- Scoring
- Analysis of Data
  - "Mirror/Thermometer", "X-Ray", "MRI", "Biopsy"
- Reporting and Interpretation of Test Results
- Use of Test Results

#### **Characteristics of Test-Takers**

- English Learners
- Economically Disadvantaged Students (SES)
- Culturally Diverse Students
- Students with Disabilities
- Gender
- Racially/Ethnically Diverse Students

# Equity in NAEP: Sampling

#### • Identifying the Assessment Population

- Oversample for some subgroups of interest While "The NAEP Law" calls for *representative sampling*, it may be necessary to oversample for some groups such as Native Americans or ethnic groups whose presence in the general population has shown significant changes over time.
- For years, eligibility for the National School Lunch Program (NSLP) was used as a proxy for socioeconomic status (SES); however, the validity of NSLP eligibility was shown to decrease over time. Therefore, an expert panel issued recommendations to NCES on how to improve the measurement of SES for NAEP.

#### Developing the item pool

• Ensure there are enough of items at all points along the score scale in order to accurately measure the achievement of all student groups being assessed.

#### Sampling of Subject Matter Content

• What will be the bases for determining the subject matter content emphases on NAEP? The Content Frameworks only or something else?

Source: Improving the Measurement of Socioeconomic Status for the National Assessment of Educational Progress: A Theoretical Foundation (November 2012).

#### Equity in NAEP: Assessment Design & Development

- Selecting reading passages
  - Select or create reading passages on a variety of topics to measure reading comprehension with the intended purpose of *maximizing student engagement* across the assessment population. Reading passages can be standardized by ensuring they have the same or nearly the same reading load or length. Allow students to choose which passage or passages they will read.
  - Focus on Students: Standardize the Level of Engagement in a reading passage.



# Equity in NAEP: Administration

- Minimize Mode Effects
  - Choose administration modes that minimize measurement error.
- Minimize Device Effects
  - Allow students to take the assessment on devices with which they are familiar.
  - Focus on Students: Standardize Level of familiarity with the device on which they will take the test.
- Digitally Based Assessments (DBAs)
  - Color Contrast, Zooming, Text-to-Speech, Equator Editor, Calculator



# Equity in NAEP: Accommodations

- Employ Universal Design features such as:
- Extra time
- Large print
- Language enhancements
- Different item presentation designs



### Equity in NAEP: Analysis of Data & Reporting

- "The NAEP Law" states that the Commissioner of Education Statistics shall report *meaningful/useful* statistics for each of the various subgroups of interest.
- Continue to make NAEP data available for conducting secondary analyses with a host of analytic tools such as the NAEP survey questionnaires.



#### Equity in NAEP: Reporting and Interpretations

- Evaluate the validity and reliability of interpretations and inferences about subgroup performances and comparisons that are made from NAEP data and reports.
  - Highlight *all* comparisons in academic achievement between subgroups defined by race, ethnicity, not just the white-black or white-Hispanic performance gaps. Share the Asian-white gaps as well.



# Equity in NAEP: Use of NAEP Results

 Report to a variety of audiences that may be able to use NAEP statistics to improve educational and social equity in a variety of contexts.



### Call to Action for Equity

- The current enthusiasm for "equity" in various aspects of our educational and social environments exists side-by-side with long established, fully functional, institutionalized caste systems in the United States based on race, ethnicity, gender, socioeconomic status, and English language proficiency.
- Not so long ago, the enthusiasm was about "equality". The equality outcome remains illusive. And yet, "equity" is likely to be more difficult to achieve because it requires those who have the resources, the power, and control to share/use these prized commodities with those who need them, but whom they may perceive as "others".

# The 5 E's of Equitable Educational Assessment

- Empathy
- Engagement
- Equity
- Evaluation
- Equality

### References

Gordon, E.W. (1996). Toward an equitable system of education assessment. *Journal of Negro Education*, 64(3), 360-372.

*Improving the Measurement of Socioeconomic Status for the National Assessment of Educational Progress: A Theoretical Foundation*. (2012). Washington, D.C.: National Center for Education Statistics.

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#### **EDUCATIONAL EQUITY INDICATORS PROJECT (EIP)**

-A Foundation for Narrowing Opportunity and Outcome Disparities-

"Equity" is the absence of significant disparities between student subgroups—not individuals—in opportunities or outcomes. It requires a group-level fit between opportunities and needs. There must be adequate efforts to mitigate the effects on outcomes of structural disadvantages and adversity that disproportionately affect different student groups. Equity is not equality. Inequity need not be unlawful discrimination.<sup>1</sup>

#### *Why this project? Why now? Because now is different, but will prove fleeting.*

**ntroduction.** Racial reckoning and the reduction of inequality require increased educational equity. To that end, the National Academies of Sciences, Engineering, and Medicine (NAS)<sup>1</sup> has recommended a framework for a "national" system of K-12 equity indicators in its report, *Monitoring Educational Equity*.<sup>2</sup> Building on those research-driven recommendations, this proposed Equity Indicators Project (EIP) will improve the evidence available to policymakers, administrators, and the public at all

levels, creating durable indicator systems to monitor and compare equity in participating jurisdictions. The project term will be 30 months.

We will augment the national NAS design to include early childhood and postsecondary disparities, while inviting jurisdictions to augment the national system with additional indicators and comparison subgroups. We will focus on four early-adopter states and districts within them. We will also provide technical assistance to states eager to improve their monitoring of equity now, without waiting for the four state pilots.

The process for creating these indicator systems must be aimed at broad consensus and include insiders, outsiders, and researchers at the state and local tables.

#### Appendices

- A. NAS Indicators Framework
- B. Workflows
- **C.** Notional Timeline
- D. Project Principals, Other Research Partners, and Advisors
- E. AERA Role as a Principal Partner
- F. Adversity, Context, and Whole Child Equity
- G. Budget
- H. Project Principals, Other Research Partners, and Advisors

<sup>&</sup>lt;sup>1</sup><u>Monitoring Educational Equity</u> (2019). NAS is the recent merger of the National Academy of Sciences, the National Academy of Engineering, the Institute of Medicine, and the National Research Council—NAS, NAE, IOM, and NRC. We use the familiar acronym, rather than NASEM.

<sup>&</sup>lt;sup>2</sup>The NAS identified seven domains, such as "educational attainment" or "access to quality curricula and instruction". It recommended 16 indicators distributed across those. For each indicator there are 1-4 specific variables to be defined and measured (constructs), such as "on-time high school graduation rate" or "teachers' years of experience. See *Appendix A*.



**Context.** Perhaps tribalism and racial hierarchy are in our biological and social DNA. Even so, in this American moment, we can make progress against racial hierarchy—both rhetorical *and programmatic*. Inequality is a trending topic in public discourse. COVID-19 incidence, response, and recovery planning have stoked concern, along with criminal justice. Biden has short-listed racial justice, along with the pandemic, the economy, climate change, and America's global standing. Leaders in politics and business have promised progress. Battling racial disparities in educational opportunities and outcomes is essential to honoring our best dreams. To guide our battle, we need indicators that identify critical problems, illuminate promising strategies, measure successes, and continually renew righteous urgency.

We have several premises. •Evidence should be fundamental, along with passion. Science should be more powerful than intuition and politics whenever possible, although all three are necessary to decisionmaking. •Indicators must be useful to policymakers, advocates, and the public. •Building consensus and designing the indicator system must include researchers, administrators, policymakers, and teachers. However, the process must also include outsiders—such as representative community leaders and advocacy groups. •The indicator system must be sustainable<sup>3</sup>, because large-scale change requires consensus in understanding the problem, identifying what is important, maintain funding, consistent leadership, and reporting to consumers. •Some states are eager to start building equity indicator systems. They will not wait for pilot projects. They deserve support soon because they, too, sense the moment.

**AS Indicators, and Local Augmentation.** The NAS framework provides a core set of 16 indicators, but with the expectation that state and local jurisdictions will add more based on their particular concerns. The committee did not recommend a core set of subgroups for comparisons (crosstabs), considering those to be policy and political judgments rather than research conclusions.<sup>4</sup> An early goal of this EIP will be to identify a consensus set of subpopulations—starting from the ESSA and CRDC obligations—again with the expectation that jurisdictions will define additional groups based upon their local salience.

A major aspect of EIP is the consensus, technical engineering of the constructs/measures that make up each indicator. What should be the precise and comparable definition of high school GPA, and how can it be accurately collected? What is the best instrument for assessing social-emotional readiness for kindergarten? Without agreed details, implementation and comparability are impossible.

For each of the 16 indicators there are 1-4 recommended constructs (measures). For example, domain B

<sup>&</sup>lt;sup>3</sup> We mean "sustainable" with regard to funding, leadership, and political support.

<sup>&</sup>lt;sup>4</sup> Congress specified four in ESSA. The department's Civil Rights Data Collection system requires reporting on XX.





is K-12 Learning and Engagement. It has 3 *indicators*, which collectively are further defined by 7 recommended *constructs*. EIP will take the critical, technical, next step of refining each construct with a precise, consensus definition. Then in each state, we will determine whether a construct requires existing, modified, or new data sources. See the **Diagram of Concepts**, above.

For another example, indicator number 10, Disparities in Access to Effective Teaching, has 3 constructs to be measured: Teachers' years of experience; Teachers' credentials/ certification; and Diversity in the teaching force. For the most part, these are proxies for a *direct* measure of effectiveness—for which there is no expert consensus. Moreover, even the proxy constructs themselves lack uniform definitions to allow comparability. Credentialing standards vary.

Three final notes. First, equity indicator systems will differ from the myriad existing dashboards and accountability schemes because those are not focused on research-driven variables covering both outcomes *and* opportunities, and do not specifically probe disparities that are critical for equity. Second, the system points to the drivers of the disparities in order to identify needed changes in policies and spending, not just the end-of-the-pipeline results of underlying decisions. Third, several recommended indicators/constructs—NAS plus augmentations—require additional research and consensus, which should shape an R&D agenda. Indicators vary in degree of difficulty, sometimes for technical reasons but often because there is insufficient research or consensus. Therefore, continuous improvement is vital and requires guidance by a coordinating body. This body might be akin to the prestigious National Assessment Governing Board (NAGB), created by Congress to oversee the gold-standard National Assessment of Educational Progress (NAEP). This role includes advancing an R&D agenda.





**Five EIP Workflows.** The programmatic activity can be grouped into five workflows, not strictly sequential. For more description, *see Appendix B*.

A. Engage four states, including at least one urban and one rural district in each. Engage to build consensus on the NAS recommended framework plus state & local augmentation, tailoring the indicator system to local concerns using additional indicators and subgroups. This requires state and local discussion "tables" with (a) insiders, (b) outsiders, and (c) researchers. The tables are both politically and substantively crucial.

We will try to achieve comparability across jurisdictions for the NAS indicators, and maximize use of existing data sources and other "report card" efforts, including those mandated by federal statutes and regulations.

- **B.** *Technical assistance* and multi-district collaboration for jurisdictions that do not want to wait for a betatested system. To deliver TA, we will enlist several NGOs and experts from other jurisdictions.
- **C.** *Beta-test* the initial 4-state indicator systems with current and modified data. Publish both technical and general audience white papers with context, early findings, guides to interpretation. (*Cf.*, the cluster of NAEP dissemination efforts, but far less ambitious.)

#### A

- **D.** *Expand participation*: Set the stage for broadening agreement on and implementation of the equity indicator system: insiders and outsiders in other states; national associations; and stakeholders beyond education. Engage Congress, the Biden Administration, national associations, and national NGOs.
- **E.** *Communication strategies and tools* to support EIP Partners, state and local leaders, and national and state/local advocacy organizations. As the work begins in CA, parents, funders, and leaders will need to be able to talk about the work and bring stakeholders at all levels along. The Data Quality Campaign will develop language and resources to communicate why these indicators matter to multiple audiences and provide communications support and advice throughout the duration of EIP. DQC will support storytelling so that partners, funders, and policy leaders can understand the challenges and opportunities involved in successful engagement and implementation. This will lay a foundation for follow-on work by engaging with policy and education leaders as well as state-based advocacy partners.

**Foundational Work for the Project.** EIP builds on three pathbreaking bodies of work, each of which involved two or more EIP principal partners.

- A study committee of the National Academies of Sciences, Engineering, and Medicine (NAS) recommended a framework, *Monitoring Educational Equity* (2019). The committee, chaired by Christopher Edley, Jr., marshalled the research literature to select equity indicators, and narrowed scores of possible measures to a parsimonious, policy-relevant, and practical few. See *Appendix A*. Governments, advocates, and researchers have advanced other equity "dashboards" which are generally consistent with the NAS framework or are too vague to be helpful in deciding policy or allocating resources.
- Another project, *The Science of Learning and Development<sup>5</sup>* published two important peer-reviewed journal articles. <u>One article</u> (2018) presented the consensus of several prominent researchers on principles that have emerged from recent developments in brain and human development research. The science principles explain the neurobiology that connects student learning with chronic stress, adverse childhood experiences, and the child's context generally<sup>6</sup>. It then identifies some research-based, ameliorative interventions. The <u>second article</u> (2018) details the implications of this recent brain science for education practice. The authors of these articles included two of the EIP Principals, Linda Darling-Hammond (LPI) and David Osher (AIR).

This and related research informed some of the more novel NAS analysis. See details in *Appendix F: Adversity, Context, and Whole Child Equity.* Note, specifically:

<sup>&</sup>lt;sup>5</sup> The six organizational partners for the first two phases of SoLD were: the Opportunity Institute (lead), Christopher Edley; Turnaround for Children, Pamela Cantor; Learning Policy Institute (Linda Darling Hammond); American Institutes for Research, David Osher; Education Counsel, Bethany Little; and Harvard Graduate School of Education, Todd Rose.

<sup>&</sup>lt;sup>6</sup> For a brief description of adverse childhood experiences (ACEs), *see https://www.samhsa.gov/child-trauma/recognizing-and-treating-child-traumatic-stress.* (Substance Abuse and Mental Health Services, U.S. Dept. of Health & Human Services, 2020)



**CONCLUSION 3-1:** The circumstances in which students live affect their academic engagement, progress, and attainment in important ways. If narrowing disparities in student outcomes is an imperative, schools cannot shirk the challenges arising from context. Neither can they confront these challenges on their own. Contextual factors that bear on learning range from food and housing insecurity to exposure to violence, unsafe neighborhoods, and adverse childhood experiences to exposure to environmental toxins. Children also differ in their individual responses to stress. Addressing student needs, in light of their life circumstances, requires a wide variety of resources. It is a responsibility that needs to be shared by schools, school systems, other agencies serving children and families, and nongovernmental community organizations.

**RECOMMENDATION 4:** Indicators are needed to document the existence and effectiveness of integrated, cross-agency services.

- The <u>Getting Down to Facts II</u> project of Policy Analysis for California Education (PACE, 2018) commissioned 36 peer-reviewed technical studies and 19 derivative research briefs by leading researchers. Like a similar project a decade earlier, this was an empirical, state-of-the-state assessment of California's P-12 system. Studies addressed many salient policy questions and highlighted significant equity gaps, but stopped short of operationalizing the research into actionable indicators. Now, our EIP will take what was learned from that earlier enterprise and expand it so it can be used by educators and policymakers to inform and enable a narrowing of disparities. Like GDTF I and II, the EIP will develop the research agenda and commission a small set of synthesis studies (because of budget constraints). We will suggest a broader set studies for a separate, follow-on effort.
- Congress chartered the *Equity and Excellence Commission*, focused on K-12. Its unanimous report, *For Each & Every Child*<sup>7</sup> (2013), divided the policy reform landscape into five domains: (1) Finance and Efficiency; (2) Teaching, Leading and Learning; (3) Early Childhood; (4) Meeting the needs of children in high-poverty communities; and (5) Governance and Accountability. It agreed on 62 recommendations across those domains. The commission was co-chaired by Dean Christopher Edley, Jr. of UC Berkeley Law School, and Professor Mariano-Florentino Cuéllar of Stanford Law School.<sup>8</sup>

**Partners & Advisors.** The *Principal Partners* will: (a) collaboratively guide EIP as a whole; (b) conduct or manage specific parts of the workflows (A-E); and (c) receive funds through EIP<sup>9</sup> or directly from funders. *Appendix C* has the full, current list of Principal Partners, Partner Researchers, and Advisors. Excepting the few noted there, all have committed to participate, conditional on funding. We will secure formal commitments and descriptions of roles when the funding picture is clearer.

<sup>&</sup>lt;sup>7</sup> U.S. Department of Education, For Each and Every Child—A Strategy for Education Equity and Excellence (2013).

<sup>&</sup>lt;sup>8</sup> Professor Cuellar, now Associate Justice on the California Supreme Court, became co-chair when Reed Hastings, CEO of Netflix, had to resign.

<sup>&</sup>lt;sup>9</sup> Practically, this means Opportunity Institute will contract Principal with



Principal Project Partners (3/4/20)		
Opportunity Inst.; UC Berkeley Law	American Education Research Assn	
Policy Analysis for CA Education	Data Quality Campaign	
The Learning Policy Institute	American Institutes for Research	
Educational Oppty Project at Stanford		

\*

What would success look like? Agreement in several jurisdictions on detailed specifications for an indicator system, supported solidly by insiders and outsiders. Successful beta-testing, yielding results comparable across early-adopter jurisdictions. Broad preliminary support in the research, practitioner, and advocacy communities. Indications of support on Capitol Hill. Passing of the baton to another entity, e.g., the federal government, National Governors Association, or the Council of Chief State School Officers. And more hope for of each and every child.

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#### SUMMARY

DOMAIN	INDICATORS	CONSTRUCTS TO MEASURE
A Kindergarten Readiness	1 Disparities in Academic Readiness	Reading/literacy skills Numeracy/math skills
	2 Disparities in Self-Regulation and Attention Skills	Self-regulation skills Attention skills
B K–12 Learning and Engagement	3 Disparities in Engagement in Schooling	Attendance/absenteeism Academic engagement
	4 Disparities in Performance in Coursework	Success in classes Accumulating credits (being on track to graduate) Grades, GPA
	5 Disparities in Performance on Tests	Achievement in reading, math, and science Learning growth in reading, math, and science achievement
C Educational Attainment	6 Disparities in On-Time Graduation	On-time graduation
	7 Disparities in Postsecondary Readiness	Enrollment in college, entry into the workforce, enlistment in the military
D Extent of Racial, Ethnic, and Economic Segregation	8 Disparities in Students' Exposure to Racial, Ethnic, and Economic Segregation	Concentration of poverty in schools Racial segregation within and across schools
E Equitable Access to High-Quality Early Learning Programs	9 Disparities in Access to and Participation in High-Quality Pre-K Programs	Availability of licensed pre-K programs Participation in licensed pre-K programs

TABLE S-1 Proposed Indicators of Educational Equity

continued

#### TABLE S-1 Continued

DOMAIN	INDICATORS	CONSTRUCTS TO MEASURE
F Equitable Access to High-Quality Curricula and Instruction	10 Disparities in Access to Effective Teaching	Teachers' years of experience
		Teachers' credentials, certification
		Racial and ethnic diversity of the teaching force
	11 Disparities in Access to and Enrollment in Rigorous Coursework	Availability and enrollment in advanced, rigorous course work
		Availability and enrollment in advanced placement, international baccalaureate, and dual enrollment programs
		Availability and enrollment in gifted and talented programs
	12 Disparities in Curricular Breadth	Availability and enrollment in coursework in the arts, social sciences, sciences, and technology
	13 Disparities in Access to High-Quality Academic Supports	Access to and participation in formalized systems of tutoring or other types of academic supports, including special education services and services for English learners
G Equitable Access to Supportive School and Classroom Environments	14 Disparities in School Climate	Perceptions of safety, academic support, academically focused culture, and teacher- student trust
	15 Disparities in Nonexclusionary Discipline Practices	Out-of-school suspensions and expulsions
	16 Disparities in Nonacademic Supports for Student Success	Supports for emotional, behavioral, mental, and physical health